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May 8, 1992

Office of Naval Research
Attn: Debra T. Hughes, Scientific Officer
Code 11SP
800 N. Quincy Street
Arlington, VA 22217

Dear Ms. Hughes:

Attached please find a Final Performance Report listing equipment acquired under **GRANT NO. N00014-89-J-1411.**

I regret the delay in providing you with this information. Please contact me if you should require anything further.

Sincerely,

T.C. McGill

Copies to:

CIT Sponsored Research
Mr. Clint Werner, ONR Pasadena

Equipment Acquired
under ONR Grant No. N00014-89-J-1411
"Simulation and Control Facility for Design and Fabrication of Microdevices"

In the original proposal, we indicated that we would purchase two Ardent Titan Workstations. However, as anyone who has followed the computer environment at all knows, the changes in vendors and products are very rapid. Hence, we have purchased equipment that at the time of the purchase best suited the original intent of the proposal. We selected IBM 6000 RISC workstations because they represented the highest performance in computing workstation available at the time of purchase. Theit performance exceeded that of the Ardent/Stardent Titans by a substantial amount for some applications involving scalar instructions. However, the IBM machines are basically computer servers and lacked graphics performance and ease of program development. To keep and enhance our graphics capability, we updated our three Ardent/Titans with memory, graphics upgrades and disks to store the very large graphics files. To make possible program development on the Ardents and IBM's, we purchased some inexpensive Sun Sparc stations. Finally, we found that the best way to handle our graphics capture needs was to purchase an all purpose scan converter that would make possible the conversion on any monitor signal into any of the various video formats. Thus, this replaced the Sony Betacam in the original proposal.

The equipment procured under this program has already been used in major applications involving simulation of growth and operation of quantum devices, superlattices and visible light emitters.

Equipment	Manufacturer	Cost
Risc 6000 Computers (2)	IBM Corporation	$72,088.29
Sparcstation, Model 4/75	Sun Microsystems	$9,691.68
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Sparc Printer	Sun Microsystems	$1,435.09
Sparc Printer	Sun Microsystems	$1,435.09
Scan Converter	James Grunder & Associates	$15,367.20
Computer System (3 Titan Workstation Processor graphics upgrade boards; additional memory and disks)	Stardent Corp.	$158,867.15